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ABSTRACT

A random sample of 542 1979 University of Maryland College Park (UMCP) bachelor's degree recipients was surveyed six months after graduation to determine: (1) general characteristics on educational status, employment status, degree of satisfaction with educational experience and career planning, use of career planning resources, and current career needs; (2) differences between winter 1978 and spring 1979 graduates; (3) differences in current career needs and attitudes toward career planning of users and non-users of Career Development Center (CDC) services; and (4) differences between male and female graduates and among graduates of the seven academic divisions of UMCP. Survey results (79 percent return) indicate that 80 percent of the graduates were employed full or part-time, with 55 percent in positions classified as professional, technical, or managerial. The mean full-time salary was $11,932. Graduates were generally satisfied with their UMCP education, and a majority had used at least one CDC resource. Both CDC users and non-users agreed that career planning services should be available to recent graduates (82 percent). Significant differences were found between male and female graduates, indicating that both tended to enter traditional occupations in settings traditional for their sex. Males represented a greater proportion of graduates from agriculture, life sciences, mathematics, and engineering; females, from arts and humanities, behavioral and social sciences, human and community resources, undergraduate studies, and allied health. The survey form is appended. (Author/LB)

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A COMPARISON OF 1978 AND 1979 UNIVERSITY OF MARYLAND, COLLEGE PARK, GRADUATES ON VOCATIONAL AND ATTITUDINAL VARIABLES

G. Diane Knight, William E. Sedlacek
and Thomas D. Bachhuber

Research Report # 10-80

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SUMMARY

A random sample of 542 (79% return) Spring, 1979, Bachelor's degree recipients was surveyed six months following graduation from the University of Maryland, College Park (UMCP) in order to ascertain: (1) the general characteristics of these graduates on educational status, employment status, degree of satisfaction with educational experience and career planning, use of career planning resources, and current career needs; (2) differences between Winter, 1978 and Spring, 1979 graduates; (3) differences in current career needs and attitudes towards career planning of users and non-users of Career Development Center (CDC) services; (4) differences between male and female graduates and among graduates of the seven academic divisions of UMCP.

Results indicated that 80% of the graduates were employed full or part-time, and that many graduates (55%) were in positions classified as professional, technical or managerial. The mean salary for graduates employed full-time was $11,932. Thirty-one percent of those reporting were in educational programs.

Graduates generally were satisfied with their education at UMCP, and a majority of those surveyed had used at least one of the resources available through the Career Development Center.

Both those who had made use of CDC services as students and those who had not agreed that career planning services should be available to recent graduates (82%). Although non-users expressed stronger agreement on this matter, they tended to disavow a need for such services. Other differences between users and non-users of CDC services were also presented and discussed.

Significant differences were found between male and female graduates indicating that both tended to enter traditional occupations in settings traditional for their sex. Males reported a higher mean salary ($14,087) than females ($10,411). Other differences between male and female graduates were presented and discussed.

Spring, 1979 graduates were compared with Winter, 1978 graduates and results were presented and discussed, along with differences among the academic divisions.

TABLE OF CONTENTS

	Page
Introduction	1
Results	3
Method	3
Characteristics of the Sample	3
Differences Between Winter and Spring Graduates	7
Differences Between Users and Non-Users of Career Development Center	9
Differences Between Male and Female Graduates	10
Differences Among Graduates From Different Academic Divisions	15
Summary and Discussion	20
Characteristics of the Spring, 1979, Sample Compared to the Winter, 1978, Sample	20
Differences Between Users and Non-Users of the Career Development Center Among Spring Graduates	23
Differences Between Male and Female Graduates	24
Differences Among Academic Divisions of the University	27
References	29
Appendix A - Tables	29
Table 1 - Types of Educational Programs of May, 1979 Graduates	30
Table 2 - Employment and Educational Status of May, 1979 Graduates	31
Table 3 - Percentage of May, 1979, Graduates Employed Full-Time by Occupational Group	32
Table 4 - Comparison of Winter, 1978, and Spring, 1979, Graduates' Educational Status	33
Table 5 - Comparison of Winter, 1978, and Spring, 1979, Graduates' Reason for Further Education	33
Table 6 - Comparison of Winter, 1978, and Spring, 1979, Graduates' Employment Status	34
Table 7 - Mean Starting Salaries of Male and Female, May, 1979, Graduates by Division	35
Table 8 - Current Career Needs of Male and Female, May, 1979, Graduates	36
Table 9 - Percentage of May, 1979, Graduates by Sex by Division	37

TABLE OF CONTENTS

	Page
Appendix A - Tables (cont.)	
Table 10 - Occupational Classification of May, 1979, Graduates by Division	38
Table 11 - Occupational Setting by Division	39
Table 12 - Use of Career Planning Resources by Division	40
Appendix B - Occupational Groupings from the Dictionary of Occupational Titles	41
Appendix C - Letter to Alumni	43
Appendix D - UMCP Alumni Career Survey II	44

INTRODUCTION

The "Survey of University of Maryland, College Park, Graduates, Fall, 1978" conducted by Rodgers, Sedlacek, and Bachhuber (1979) reported a study of a random sample of recent graduates from the University of Maryland at College Park, (UMCP), and surveyed their current vocational/educational activities and attitudes and their perceptions of the career planning services offered by UMCP. The usefulness of such a survey and the difficulties of attending to methodological problems evident in similar studies was well documented in that report. The first purpose of the present study was to replicate the Rodgers, et al., study, and to ascertain what differences existed between male and female graduates of the several academic divisions on educational status, employment status, degree of satisfaction with educational experience, use of career planning resources, and current career needs.

Since little information is routinely collected concerning the activities of recent graduates, this replication provided an opportunity to compare the attitudes and activities of recent graduates from two different classes, Spring, 1979, and Winter, 1978. This was the second purpose of this study: to determine differences between Winter and Spring graduates that might be related to time of graduation, and therefore time of entry into the job market, on such variables as educational status, employment status, degree of satisfaction with educational and career planning, and use of career planning services. A related question that we hoped to answer was how often it is necessary to survey graduates of a large university.

Rodgers, et al., reported a significant discrepancy between the number of graduates who agreed that career planning services should be provided for recent alumni (83%), and the number of those same alumni who made use of such services while they were students (59%). Of additional, and perhaps related

interest, were the comments made by respondents indicating that they felt less than adequately prepared to enter the world of work. It was difficult to know how to interpret such results. Rodgers, et al., suggested that the educational institution may not have adequately prepared students for the realities they would confront in the working world. An alternative hypothesis is that some college students were ready to make use of career planning services only when they had been confronted with the challenges of the marketplace and became aware of the inadequacies of their preparation.

The variables that influence an adequate adjustment during the transitional phase from school to job are numerous. Research by Haccoun & Campbell (1972) identified some of the factors influencing entry into the job market by high school graduates. The work entry problems that they enumerate seem relevant for college graduates as well. These fall into two classes: 1) on the job performance problems such as new roles, work habits, attitudes and values, and 2) job entry, career planning and management problems such as educational preparation, job seeking, occupational aspirations, and job expectancies. Stevens (1973) found that "placement readiness" was highly correlated with a "Job Placement Success Scale." It may be that some students who were least prepared for the realities of the marketplace were simply not 'ready' to make use of career planning services until confronted with the necessity of doing so. The educational institution could not prepare the student who did not want assistance or was not ready to make use of it. It may be that the increased interest in career planning services expressed by the UMCP graduates reflected a readiness that comes when confronted with moving from the educational environment to the world of work.

The final purpose of this study was, therefore, to discern whether there were differences in attitudes towards career planning between those students who made use of services provided by the Career Development Center (CDC) while

they were students and those who did not. Specifically, we wanted to explore attitudes towards career planning and the world of work, and to discover what specific assistance recent graduates desired from their educational institution during the transition from student to worker.

RESULTS

Method

Subjects. An anonymous questionnaire was sent to a random sample of 954 of the 2909 graduates who received Bachelor's degrees in May, 1979. The initial sample was reduced to 809 because current addresses were not available for 145 graduates. An additional 123 could not be reached after four attempts by mail or phone, resulting in a sample of 686. Follow-up procedures included a reminder by mail, a telephone call, and sending a second questionnaire where necessary. Of the 545 (79% rate of return) questionnaires that were returned, 3 arrived too late to be included in the analysis. Results were reported for 542 useable questionnaires.

The survey was mailed to graduates in late October, 1979, six months after graduation from the University.

Analyses. Data were analyzed using percentages, chi square, t-tests, analysis of variance, and Newman-Keuls pairwise comparisons. All differences which were reported were significant at the .05 level unless otherwise noted. Percentages that do not add to 100% were due to rounding or "other" responses.

Characteristics of the Sample

The sample of 542 was 54% female and 46% male; 92% white, 3% black, 2% Hispanic, and 2% Asian/Oriental.

Educational Status. While most graduates (69%) were not currently enrolled in any kind of educational program, 14% were enrolled part-time and 16% were enrolled full-time in some educational program. Most of those who

were in educational programs (61%) were seeking degrees (Table 1). The remainder of those pursuing educational programs were enrolled in programs to enhance employability (20%) or in "other types of education" (19%). When asked their reason for further educaiton, 62% of those enrolled indicated that their career goals could only be attained through further education, and 72% of those enrolled indicated an interest in education for its own sake.

Employment Status. Most graduates were currently employed, 63% full-time and 17% part-time. Only 6% reported being unemployed and seeking work. Some graduates (21%) reported that they were currently employed, but were seeking work in their chosen field (see Table 2).

Most graduates worked in business or industry (40%). The remainder worked in a variety of settings: 12% in education, 14% in federal, state or local government, 4% self employed, 3% in social/community services, 1% in the military, and 10% in other settings. The majority of graduates (55%) had entered professional, managerial or technical occupations, positions for which a college education might be required. The remaining graduates were in non-managerial sales and clerical occupations (16%), service occupations (6%), agricultural, fishery, forestry and related occupations (2%), structural or construction occupations (1%), and miscellaneous other occupations (2%) (see Table 3 & Appendix B for listing of occupations).[1]

Salaries of graduates working full-time who reported their salary (N=341) ranged from $1,039 to $25,000, with a median salary of $11,200 and a mean salary of $11,932.

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[1]Occupational categories were taken from the Dictionary of Occupational Titles. Graduates who entered managerial or professional positions in sales, agricultural, fishery, forestry occupations were classified as professional, managerial or technical, as were graduates entering most social service occupations. Appendix B provides examples of occupational categories for each classification.

Degree of Satisfaction. Several items assessed the degree to which graduates were satisfied with their present situation, their college education, and their career preparation while students at UMCP.

The majority of graduates ((60%) agreed with the statement, "I am satisfied with my present situation." Most (68%) indicated that they "would take the same or a similar major" if they had it to do over again. Although some (55%) wished they had had more practical job preparation at UMCP, only a few (18%) wished they had taken a more practical, job oriented major. Some graduates (35%) indicated that they wished they had taken a greater variety of courses in addition to their major.

A majority of the graduates (66%) agreed that "my undergraduate academic program helped me to prepare for my present situation," as did "my personal life in college" (63% agreed) and "my extracurricular life in college" (52% agreed).

Graduates as a whole were less certain about their satisfaction with career preparation prior to graduation. Only 46% of those responding agreed with the statement, "the working world is just as I had expected it to be," and 34% were undecided about the statement. While only 27% of the respondents agreed with the statement, "It is difficult to find information about careers at UMCP," 33% responded "undecided." Also, while 23% agreed with the statement, "The Career Development Center was helpful to me in planning for my career," an additional 26% responded "undecided."

When asked if they would seek out more help choosing a major and a career before graduating if they had it to do over again, 41% agreed that they would, compared to 43% who disagreed. More graduates agreed (57%) than disagreed (27%) that they would "seek out more help with job search skills before graduation" if they had another opportunity.

Graduates were quite clear, however, that "career planning and job hunting services should be more accessible through academic courses and the regular curricula," (73% of the respondents agreed with this statement). In addition, 82% of those surveyed agreed that UMCP should provide career planning services for recent alumni.

Use of Career Planning Services. The graduates who were surveyed reported using numerous resources in their career planning. For 61% of the respondents, at least one or more of those resources were provided through the CDC at UMCP. While 52% of all respondents sought assistance from the CDC staff, 73% of those who sought such assistance reported that the assistance they received was helpful. Other resources utilized by the majority of all students included family, friends and clergy (78%), other UMCP faculty/staff (69%), interviews with employers (61%), written material on job search techniques (56%), and job vacancy accouncements (55%).

While only 35% of those surveyed had attended career related workshops, courses, or programs, 87% of those who did found this to be a helpful resource.

Since numerous services were available to students through the CDC, graduates who did not make use of the services provided through the CDC were asked to indicate their reason for not doing so. Only 16% of those graduates reporting that they did not use CDC services indicated that they did not know of the services offered by the CDC. Most respondents (68%) reported that they knew of the services but either did not think that those offered would be of any use to them (18%), or that they did not have the time to take advantage of them (23%), or that they did not think that they had a need for them (27%). The remainder reported "other" reasons.

Finally, graduates were asked to indicate those areas of career planning in which they experienced a need for assistance now. Most respondents (64%) expressed a desire for help in exploring career options that they might not

have considered. A majority of all respondents also reported a need for help in learning about additional specialized training in their field, and with knowing how to find information about jobs in their field of interest (56% and 50% respectively).

Differences Between Winter and Spring Graduates

General Characteristics. The sample of students graduating in the Spring of 1979 was compared with that drawn from students who received their Bachelor's degree in the Winter of 1978. The Spring graduates were surveyed 6 months after graduation and the Winter graduates 4 months past graduation. Generally, the two samples were similar, but there were a few significant differences.

The samples were not significantly different in their sexual composition, but they were significantly different in racial composition. The sample from the Winter class had a greater percentage of blacks (7%) compared to the Spring sample (3%). Also, less than 1% of the Winter sample was Hispanic, but 2% of the Spring sample reported Hispanic heritage.

Educational Status. A significantly greater number of alumni graduating in the Spring were enrolled in educational programs full-time (17%) and part-time (14%) compared to those graduating in the Winter (6% full-time, 10% part-time) (Table 4). There were no significant differences in the type of educational programs the alumni of the two classes were pursuing.

There were significant differences between the two classes with regards to the reasons that alumni were enrolled in continuing education at the time of the survey. A significantly greater number of alumni graduating in the Winter (15%) as compared to the Spring graduates (2%) endorsed the statement, "I could not find a suitable job," or gave "other" as a reason for being in school (13% in Winter 8% in Spring). A significantly greater number of Spring graduates

(62%) compared to Winter graduates (45%) endorsed the statement, "My career goals can only be attained through further education," (Table 5).

Employment Status. There were significant differences also between Winter and Spring classes with respect to employment status (Table 6). A greater number of Winter graduates (12%) reported that they were "unemployed, but seeking a job," compared to Spring graduates (7%). However, more Spring graduates (10%) then Winter graduates (7%) reported that they were "not in the labor force." More graduates from the Spring class (64%) than from the Winter class (61%) were employed full-time, and more Winter graduates (20%) than Spring graduates (17%) were employed part-time.

Salaries, occupational classifications, and work settings were comparable for each sample.

Degree of Satisfaction. Students graduating in the Spring tended to agree (mean = 2.54)[2] with the statement, "I am satisfied with my present situation," while graduates of the Winter class seemed less certain (mean = 2.84). Spring graduates also tended to agree that their personal life in college (mean = 2.46) and their extracurricular life in college (mean = 2.69) helped to prepare them for their present situation. Winter graduates, on the other hand, seemed less certain about both the role of personal life (mean = 2.71) and of their extracurricular life (mean = 2.95). When asked about academic preparation, Spring graduates tended to agree (mean = 2.42) with the statement, "I wish I had had more practical job preparation at UMCP," while Winter graduates again seemed less certain (mean = 2.61). Also, Spring graduates tended to disagree (mean = 3.67) with the statement "I wish I had taken a more practical, job oriented major," while Winter graduates again seemed less certain (mean = 3.45).

[2]Items were scored on a 5-point scale as follows: 1 = strongly agree, 2 = agree, 3 = undecided, 4 = disagree, 5 = strongly disagree.

Use of Career Planning Services. Both classes report similar use of Career Development Center services, e.g., 56% of the Spring class and 54% of the Winter respondents sought assistance from the Career Development Center staff. There were significant differences in the assistance sought from other sources, however. Significantly more Spring graduates sought assistance from other UMCP faculty and staff (73%), from family, friends, or clergy (83%), and from job vacancy announcements (59%) than Winter graduates (63%, 77%, and 54% respectively).

Differences Between Users and Non-Users of Career Development Center

Graduates of the Spring, 1979 class were asked to indicate whether at least one of the career planning resources that they used was offered through the Career Development Center at UMCP. Those who had used CDC resources (63%) were compared with those who had not used these services through the Center, although they might have sought similar services elsewhere.

Career Planning Resources. Many graduates who had not made use of CDC resources reported having sought assistance from other sources. Most of these graduates who did not use the CDC sought assistance from family, friends, or clergy (83%). Other faculty and staff at UMCP were sought out by 73% of those who did not use CDC services. Some students who did not use the CDC (23%) sought assistance from private or state employment agencies. However, none of these resources enjoyed greater use by students who did not use the CDC than by students who did.

Attitudes About Career Planning. There were significant differences between users and non-users of the CDC with regards to attitudes about the availability of services. Graduates who did not make use of the CDC while they were students tended to agree more strongly (mean = 1.90) with the statement, "I feel that UMCP should provide career planning services for recent alumni,"

than did those who used such services as students (mean = 1.69). Also there were significant differences between user and non-user responses to the statement, "The world of work is just as I expected it to be." Those who did not make use of the CDC services tended to agree more strongly (mean = 2.78) with the statement than those who did make use of services (mean = 2.57). However, there were no significant differences between user and non-user responses to the statement, "I can make better use of career planning services now than I could when I was a student at UMCP." Both users and non-users tended to agree with the statement (mean = 2.83 and 2.65 respectively).

Current Career Needs. Graduates who did not make use of services offered through the Career Development Center tended to disavow current career needs. Significantly more users of the Center's services (62%), as compared with non-users (48%), endorsed a need for help in learning about additional specialized training in their field. This career need was endorsed by a majority of all respondents (56%), regardless of their contact with the Career Development Center. A majority of all respondents (51%) also expressed a desire to know how to find information about jobs in their field, and while not statistically significant, more users (53%) than non-users (48%) expressed this career need. The third career need endorsed by a majority of all respondents (64%) exploring career options not considered was also endorsed by more users (69%) than non-users of the Center's services (61%). The only career need for which more non-users (42%) than users of the Center's services (33%) expressed a need was for developing a marketable resume. This difference also was not statistically significant.

Differences Between Male and Female Graduates

When comparing males and females in the sample, we found significant differences in several areas. It is important to note that females represented

a larger proportion (54%) of all respondents in this sample than did males (46%), and a larger proportion than existed among the Spring, 1979, Bachelor's degree recipients (49% were female and 51% were male) from which the sample was drawn.[3]

Educational Status. There were few differences in the educational status of males and females in the sample. About the same number of females (15%) were engaged in continuing education as males (16%). Although not statistically significant, there were differences in the kinds of degree programs graduates were pursuing. The majority of graduates who were enrolled in a Masters Degree program (57%) were women, as were the majority who were enrolled in programs designed to enhance employability (52%). However, only 25% of those graduates who were enrolled in Doctoral Degree programs and 40% of those enrolled in professional degree programs (Medical, Law, Divinity) were women.

There were differences also in the reasons given by males and females for continuing their education. More of those who reported that "career goals can only be attained through further education" were males (57%), while a majority of those graduates who reported that they were "interested in education for its own sake" were females (57%).

Employment Status. The graduates did not differ by sex as far as their present employment situation was concerned. Although a greater percentage of all female respondents (53%), as compared to all male respondents (50%), reported that they were employed in their chosen field, this difference was not statistically significant. A greater proportion of females (24%) than males (19%) also reported that they were employed but were seeking work in their chosen field, but again this difference was not statistically significant. The

[3] Data furnished by the Data Research Center, UMCP.

differences between males and females in employment status also were not significantly different, but there were differences worth noting. The unemployment rate among male graduates was higher (9%) than that among female graduates (6%). About the same proporiton of male graduates (63%) as female graduates (65%) were employed full-time; however, relatively more female graduates (20%) than male graduates (14%) were employed part-time.

There were significant differences between males and females in the kinds of occupations they entered, the types of organizations in which they reported working, and in the salaries they reported recieving. More males (71%) than females (64%) reported occupations that are classified as professional, technical, or managerial. More males than females also reported non-professional service occupations (8% & 7% respectively), and agricultural, fishery, forestry and related occupations (3% for males and 2% for females). However, more females (25%) than males (12%) reported occupations classified as clerical or sales.

There were significant differences also in the settings in which male and female graduates work. Significantly more of those graduates who work in educational organizations were women (75%), and significantly more of those graduates who reported working in "large national/international business/-industry" were men (62%). A greater number of those employed in federal government (71%), in state and local government (52%), in social/community service organizations (86%), and in "other business/industry" (53%) were women.

The salary earned by recent graduates was also significantly different for males and females. Males employed full-time reported a mean salary of $14,087, and females employed full-time reported a mean salary of $10,411. Males also reported a higher mean salary within each of the six academic divisions of the university in which both males and females were represented (see Table 7).

Degree of Satisfaction. While graduates of both sexes reported that they were satisfied with their present situation, males tended to agree more strongly (mean = 2.28) than females (mean = 2.60) that their undergraduate program helped them to prepare for their present situation. This pattern was also evident in stronger agreement by males (mean = 1.97) than by females (mean = 2.23) that they would select the same or a similar major it given another opportunity, and by stronger disagreement by males (mean = 3.87) than by females (mean = 3.54) that they wished they "had taken a more practical, job oriented major." Males also tended to disagree (mean = 3.38) with the staement, "I wish I had taken a greater variety of courses in addition to mymjor," while females seemed less certain (mean = 3.11) about the statement.

Use of Career Planning Services. When asked about their attitudes toward career planning services at UMCP, there were consistently significant differences between males and females.

Females agreed more strongly (mean = 2.70) than males (mean = 3.02) that college life does not permit sufficient time to engage effectively in career planning or job hunting, and that career information was difficult to find at UMCP (mean = 3.03 for females compared to 3.22 for males).

Females seemed less certain (mean =3.46) than males (mean = 3.24) about the statement, "The Career Development Center was helpful to me in planning for my career." At the same time, when asked if they would seek help in choosing a major or a career if they had to do it over again, females seemed more certain (mean = 2.83) than males (mean = 3.13), and agreed more strongly (mean = 2.40) than males (mean = 2.78) that they would seek more help with job search skills before graduation. Females also agreed more strongly (mean = 1.99) than males (mean = 2.31) that career planning should be accessible through academic courses and the regular curricula.

In spite of these differences in attitudes towards career planning, there were few differences in the actual use of recources by these two groups of students.

Few graduates (29%) reported attendance at career related workshops, etc. However, significantly more of those who found this recource helpful were women (66%). At the same time, the majority of those who reported that the assistance received was not helpful also were women (70%). There were significant differences, too, between males and females in the use of employer literature. Of those who did utilize this resource and found it helpful, significantly more were males (56%); while significantly more of those who did not find it helpful were females (55%). Likewise, a significant proportion of those who reported that the assistance sought from job vacancy announcements was not helpful were females (65%). A majority of all graduates (77%) found that the assistance in career planning received from family, friends and clergy was helpful. If one considers only those who found the resource helpful, 59% were women; while 52% of those who did not find the resource helpful were men.

While both male and female graduates agreed that career planning services should be provided by UMCP for recent alumni, females tended to agree more strongly (mean = 1.71) than males (mean = 1.85). Females also tended to agree more strongly (mean = 2.69) than males (mean = 2.89) that they could make better use of career planning services now than they could when students at UMCP. The greater endorsement by women of career planning services for recent alumni is also reflected in the current career needs reported by the graduates (see Table 8).

As noted earlier, a majority of all graduates (51%) expersed a need for help in knowing how to find information about jobs in their field of interest. Significantly more of those expressing a need for help in this area were women (63%). Also, a majority of all graduates expressed a need for help in learning

about additional specialized training in their field. Again, a significant proportion of those needing help in this area were women (60%). Finally, a significant number of all graduates, regardless of sex, (64%) indicated a need for help in exploring career options that they may not have considered. Again, a significant porportion of those expressing this need were women (59%).

The majority of all respondents did not express a need for help in several other areas of career planning. However, a significant number of those who did express a need were women. Women comprised 63% of those who desired help learning effective job hunting strategies, 64% of those desiring help with learning how to communicate effectively and be confident in job interviews, 63% of those desiring help exploring careers that fit their interests, skills and values, and 64% of those desiring help identifying their interests and skills and relating these to possible careers.

Differences Among Graduates from Different Academic Divisions

General Characteristics. UMCP is divided into seven academic divisions: Agricultural and Life Sciences; Arts and Humanities; Behavior and Social Sciences; Human and Community Resources; Mathematics, Physical Sciences and Engineering; Undergraduate Studies; and Allied Health. The graduates surveyed reported several significant differences among these divisions. The number of males and females represented in each division were significantly different (Table 9). The majority of graduates in Agricultural and Life Sciences (54%) and in Mathematics, Physical Sciences, and Engineering (85%) were male; while there were more female graduates in Arts and Humanities (60%), Behavioral and Social Sciences (52%), Human and Community Resources (84%), Undergraduate Studies (75%), and Allied Health (100%).

Differences in the way that graduates characterized their present situation were also evident among the divisions. While more graduates (74%) of

the division of Mathematics, Physical Sciences and Engineering were employed in their chosen field than in any other division, a majority of students in Undergraduate Studies (69%), Human and Community Resources (62%), and Arts and Humanities (53%) also reported employment in their chosen field. Also, while the largest proportion of graduates from the Behavior and Social Sciences (44%) and from the Agricultural and Life Sciences (38%) reported that they were employed in their chosen field, more students in these divisions (26% and 21% respectively) than in other divisions also reported that they were employed, but looking for work in their chosen field, or characterized themselves primarily as students (23% and 34% respectively).

Educational Status. The majority of respondents from each division were not currently enrolled in graduate, professional or other educational programs. There were significant differences, however, among those who were enrolled. Significantly more graduates from the Agricultural and Life Sciences (42%) and the Behavioral and Social Sciences (38%) divisions were pursuing educational goals, and significantly fewer from the divisions of Arts and Humanities (16%) and Human and Community Resources (20%) were doing so. The kinds of degree programs and reasons for continuing education were not significantly different among the divisions.

Employment Status. Significant differences across divisions were found amoung the graduates surveyed on employment status, occupational classification, and occupational setting. The majority of students graduating from each division were employed full-time, but significantly more graduates from the Undergraduate Studies division (88%) and the Mathematics, Physical Sciences, and Engineering division (82%) reported full-time employment. If part-time employment was included, the division of Human and Community Resources joins these two divisions with a total of 91% employed, compared to 94% for Undergraduate Studies and 90% for Mathematics, Physical Sciences and

Engineering. The division of Agriculture and Life Sciences and the division of Behavioral and Social Sciences reported the lowest employment rate (51% and 59%, respectively for full-time; 22% and 20% respectively for part-time). However, a significant number of graduates in Agriculture and Life Sciences (21%) reported that they were not in the labor force, and 34% of this division's graduates reported that they were pursuing further education. The division of Arts and Humanities and the division of Behavioral and Social Sciences reported the highest unemployment rates (11% and 8%, respectively).

There were also significant differences among divisions on the classification of occupations that graduates entered (see Table 10). Significantly more graduates of Mathematics, Physical Sciences, and Engineering (88%), of Arts and Humanities (75%), and of Human and Community Resources (75%) entered jobs that were classified as professional, managerial or technical. On the other hand, significantly fewer graduates (41%) from Undergraduate Studies entered jobs in this classification, and significantly more from this division (47%) (compared to all other divisions) entered clerical or sales occupations. In addition, while the majority of Behavioral and Social Science graduates (57%) entered professional, managerial or technical positions, 30% from this division also reported occupations that were classified as clerical or sales.

Graduates also reported working in significantly different types of organizations across academic divisions (see Table 11). A larger proportion of graduates from Agriculture and Life Sciences (54%) and from Mathematics, Physical Sciences, and Engineering (42%) worked in large national/-international business/industry. As might be expected, a significantly greater proportion of graduates (35%) from the division of Human and Community Resources worked in educational settings (compared to all other divisions); however, 22% from this division worked in other business/industry and 13% in large national/international business/industry.

Finally, it must be noted that significantly different salaries were reported by graduates employed full-time across divisions. Graduates of Mathematics, Physical Sciences and Engineering earned a significantly higher salary on the average (mean = $16,938) compared to all other divisions. Other divisions ranged from a mean salary of $10,435 for graduates of Human and Community Resources to $13,155 for graduates of Undergraduate Studies (see Table 7).

Degree of Satisfaction. Recent alumni were generally satisfied with their present situation, regardless of their academic division. However, there were significant differences across divisions on attitudes towards academic preparation and career planning.

Graduates of Mathematics, Physical Sciences and Engineering agreed most strongly (mean = 1.73) that their academic preparation prepared them for their present situations, while graduates of the Behavioral and Social Sciences were significantly less certain (mean = 2.67) about their preparation. Mathematics, Physical Sciences and Engineering graduates were also significantly stronger in their disagreement with the statement, "I wish I had taken a more practical, job oriented major," (mean = 4.35) compared to all others; and graduates of Undergraduate Studies were significantly less in agreement (mean = 2.56) with the statement, compared to all others.

When asked about their career preparation at UMCP, graduates of the division of Mathematics, Physical Sciences and Engineering reported significantly stronger agreement (mean = 2.56) that the Career Development Center was helpful in their career preparation compared to all other divisions. At the same time, students of this division were less in agreement (mean = 2.80) with the suggestion that career planning services should be accessible through the regular curricula, than students in the divisions of Behavioral and Social Sciences and Human and Community Resources (mean = 1.89 and 1.97

respectively). Students of Mathematics, Physical Sciences, and Engineering also tended to disagree with the suggestion that they might seek out more help with job search skills (mean = 3.27) or with choosing a major or career (mean = 3.62), if they had it to do again. Graduates of the Behavioral and Social Sciences tended to agree that assistance with both might be sought had they another opportunity (mean = 2.29 and 2.69 respectively). Undergraduate Studies respondents also agreed (mean = 2.50) that they might seek assistance with choosing a major or career if they had another opportunity.

Finally, graduates of the divisions of Agriculture and Life Sciences and Behavioral and Social Sciences agreed most strongly (mean = 1.62 and 1.68 respectively) that career planning services should be available to recent alumni.

Use of Career Planning Resources. Along with differences among the divisions concerning attitudes towards career planning, there were also significant differences in the use made of career planning resources by graduates prior to graduation. Significantly more students from Mathematics, Physical Sciences, and Engineering (63%) sought assistance from the Career Development Center staff, and 94% of these students found it helpful. A majority of respondents from Behavioral and Social Sciences and from Human and Community Resources (60% and 64% respectively) also sought help from the Career Development Center Staff, and 71% of those from Behavior and Social Sciences and 75% of those from Human and Community Resources who sought such assistance found it to be helpful. On the other hand, only 21% from Undergraduate Studies sought out the Career Development Center Staff, but all of these respondents found the staff helpful.

Other resources which showed significant differences among the divisions included other faculty and staff, career related workshops, written material on job search skills, and employer literature. Table 12 shows the results for these resources.

SUMMARY AND DISCUSSION

A random sample of Spring, 1979, Bachelor's Degree recipients was surveyed six months following graduation from UMCP in order to ascertain: 1) the general characteristics of these graduates with regards to educational status, employment status, degree of satisfaction with educational experience and vocational planning,use of career planning resources, and current career needs; 2) what differences existed between graduates who received their degrees in the Winter of 1978 and in the Spring of 1979; 3) what differences in current career needs and attitudes towards career planning existed between Spring, 1979, graduates who did and who did not make use of Career Development Center services as students; and 4) what differences existed between male and female graduates and among the graduates of the seven academic divisions of UMCP. Each of these purposes will be discussed in turn.

Characteristics of the Spring, 1979, Sample Compared to the Winter, 1978, Sample.

Employment. Results indicated that a majority (80%) of graduates from the Spring, 1979, class were employed either full-time or part-time (see Table 6), and that most graduates (55%) were in positions classified as professional, managerial, or technical. Spring graduates working full-time reported a mean salary of $11,932.

The unemployment rate among Spring, 1979, graduates was 6%. This proportion of graduates unemployed and seeking work is generally in line with the national unemployment rate as of October, 1979, which was 5.9%.[4] It must be noted that this was a much lower rate of unemployment than that reported by the Winter, 1978, graduates (Rodgers, et. al., reported a 12% rate of

[4] Bureau of Labor Statistics, 1979.

unemployment) (see Table 6). Two factors may have accounted for the difference. The first is the amount of time that elapsed between graduation and data collection. Winter graduates were surveyed 4 months after graduation and Spring graduates 6 months past graduation. The additional 2 months lapse in time may have provided sufficiently more opportunity for graduates of the Spring class to secure positions. The second factor is related to the data gathering itself. Since the unemployment rate in the survey of the Winter class may have been inflated by graduates pursuing higher education (Rodgers, et. al., pg. 14), respondents from the Spring class were asked to describe themselves as primarily "students" or primarily "unemployed" in order to gain a clearer picture of the unemployment rate.

Education. While most graduates were not pursuing additional education, 31% of those responding reported that they were involved in some kind of a continuing education program. Most of those who were involved in educational endeavors (62%) reported that their career goals could only be attained through further education. Again, it is interesting to note that a significantly greater percentage of the Spring graduates (31%) as compared to the Winter graduates (16%) were pursuing some continuing education (Table 4). And while the types of educational programs were not significantly different, the reasons for engaging in further education were (Table 5). Significantly more Winter graduates (15%) than Spring graduates (2%) reported that they were continuing their education because they were not able to find a suitable job. On the other hand, more Spring graduates (62%) than Winter graduates (45%) reported that career goals could only be attained through further education. This difference in educational status and the reasons for it may be related to the time at which the data was collected. Since many academic programs begin in the Fall, respondents who graduated in the Winter may not have begun their graduate studies when they were surveyed in May of 1979. Spring graduates, on the other

hand, were more likely to have entered their graduate programs by the time they were surveyed.

Degree of Satisfaction. A large number of graduates of both classes expressed satisfaction with their present situation, although graduates of the Spring class tended to be more certain (mean = 2.54) about their attitude than those who reported from the Winter class (mean = 2.84). Also, consistently more Spring graduates expressed satisfaction with their educational experience. More Spring graduates, compared to Winter graduates, indicated that their undergraduate academic program helped to prepare them for their present situation (66% vs. 62%), as did their personal life (63% vs. 55%), and their extracurricular life (52% vs. 42%). More Spring graduates than Winter graduates also reported that they would take the same or a similar major (68% vs. 67%) if they had it to do again. By the same token, fewer Spring graduates than Winter graduates would have preferred more practical job preparation (55% vs. 60%), a more practical, job oriented major (18% vs. 25%), or a greater variety of courses (35% vs. 36%). This pattern of greater satisfaction with their educational experience among Spring graduates is consistent with the proportion of Spring alumni who were satisfied with their present situation (60%, compared to 50% of Winter respondents). Perhaps the best interpretation of these findings is simply that graduates who reported satisfaction with their present situation were less likely to find fault with their preparation for it. What is not clear, and calls for further research, is why more Spring graduates than Winter graduates expressed satisfaction with their present situation. Both classes were comparable in the kinds of positions that graduates obtained, the salaries that they reported, the types of organizations in which they worked, and their utilization of career planning services. None of these variables, therefore, would serve as an adequate explanation for the difference between the two classes.

Frequency of Survey. One purpose for comparing responses from the Winter and Spring Bachelor's degree recipients was to determine whether surveying graduates once a year would provide sufficient information about UMCP graduates. The results of the survey seemed to indicate that while there were differences between recent alumni from the two classes, some of those differences may have been related to the amount of time that elapsed between graduation and data collection. Since the differences between these two groups with regards to their educational and employment status were not substantial, conducting a survey such as this once rather than twice a year appears to provide adequate information regarding the status of recent garduates.

Differences Between Users and Non-Users of the Career Development Center Among Spring Graduates

Graduates of the Spring, 1979, class who indicated that at least one of the career planning resources they used as students was offered through the Career Development Center (CDC) (63%) were compared with those who had not utilized CDC services at UMCP. There were significant differences between users of such services and non-users. However, since many non-users of CDC services sought some kind of assistance with career planning, it is difficult to interpret the difference between students who sought assistance from the CDC at UMCP and those who sought it elsewhere.

Those who did not use CDC services expressed stronger agreement with the proposal that career services be offered for alumni (mean = 1.90) than those who made use of such services as students (mean = 1.69). The reason for this is not clear. It may be, as we hypothesized, that experiencing the world of work prompted an awareness of inadequacies and career needs previously unknown. But evidence in this survey did not substantiate that. Although non-users tended to agree more strongly (mean = 2.83) than users (mean = 2.65) that they could

make better use of career planning services as alumni than they could as students, the difference between these two groups was not statistically significant. Also, non-users tended to agree significantly more strongly (mean = 2.78) than users (mean = 2.57) that the world of work was just as they had expected it to be. In addition, although non-users strongly supported career planning services for alumni, they tended to disavow current career needs, even those which the majority of all respondents endorsed, i.e., learning about additional specialized training, learning how to find information about jobs in their field, and exploring career options not considered. Finally, when asked the reason for not using CDC services, more non-users (27% of all non-users) reported that they did not think they had a need for such services than any other reason.

It may be that those who did not use CDC services did not believe that they had a need for them, and that those who did use the services simply felt more of a need for assistance. It may also be that those who did use services were more aware of the assistance that they needed and more willing to acknowledge a desire for continued assistance than those who had not used services in the past. One must be cautious in deciding how to interpret this data. Further research is necessary to understand why graduates endorse career planning services for alumni that they did not utilize as students and disavow a need for as graduates.

Differences Between Male and Female Graduates

Male and female graduates receiving Bachelor's Degrees in the Spring of 1979 were similar in educational and employment status. About the same proportion of male graduates (16%) as female graduates (15%) were engaged in continuing education programs. Also, about the same proportion of male graduates (63%) as female graduates (65%) reported working full-time.

There were significant differences between males and females in the kinds of occupations they entered, the types of organizations in which they reported working, and the salaries they reported. These differences were consistently in the same direction.

Occupations and Work Settings. Significantly more males (71%) than females (64%) reported professional, managerial or technical occupations, many of which have traditionally been male-dominated occupations. At the same time, fewer males (12%) than females (25%) reported clerical or sales positions, which have often been traditional female-dominated occupations. This pattern was repeated in the types of organizations in which males and females reported working. Significantly more of those graduates who reported working in an educational organization were women (75%), a traditional setting for them; and significantly more of those who reported working in large national/-international business/industry were men (62%), a traditional setting for them. It must also be noted that more females than males reported working in each of the other settings, i.e., federal government, state and local government, social/community service organizations, and other business/-industry, (although this difference may be related to the higher response rate among female graduates). Thus based on these data, it appears that women and men are largely employed in the areas that have been traditional for them.

Salary Differences. The differences in salaries that were reported by male and female graduates also follow the traditional pattern. Males employed full-time reported a significantly higher mean salary, $14,087, than females employed full-time, $10,411. In addition, this pattern was consistent within each of the six academic divisions of the University in which both males and females were represented (Table 7). While it is clear that women recipients of Bachelor's Degrees received lower starting salaries than their male counterparts, the reason for this is not clear. It may be that women graduates

are paid lower salaries than males doing comparable work, or it may be that women graduates sought and secured lower paying positions as their preference. This latter interpretation gains some support from the fact that 53% of the women responding indicated that they were employed in their chosen field and only 24% indicated that though employed they were looking for work in their chosen field. It must also be noted that the diversity within some of the academic divisions may account for differences in the kinds of jobs (and therefore the level or salary) that were obtained by the men and women in the same divsision. Further research to refine the difference between male and female graduates might take this diversity into account.

Degree of Satisfaction. Both male and female alumni reported that they were satisfied with their present situation, and generally both were satisfied with their educational experience and their career planning. However, more males (71%) than females (61%) agreed that their undergraduate academic program helped them to prepare for their present situation and that they would take the same or a similar major again (72% and 65% respectively) and disagreed that they would have preferred a more practical/job oriented major (70% and 65% respectively) or a greater variety of courses in addition to their major (59% and 52% respectively).

Also, more males tended to be satisfied with their career planning than females. More women graduates (32%) than males (21%) agreed that career information was difficult for them to find at UMCP, and that college life did not permit sufficient time for career planning (53% and 38% respectively). More female graduates (78%) than male graduates (68%) also agreed that career planning should be available through the regular academic curricula and that they would seek more help in choosing a major or a career (46% and 34% respectively) and with learning job search skills (64% and 48% respectively) if they had it to do over again. Female respondents also expressed a greater

desire for assistance with a variety of current career needs (see Table 8), and more females (47%) than males (37%) agreed that they could make better use of such services as alumni than they could as students.

Female graduates in this sample seemed fairly consistent in expressing greater need for assistance as students in choosing a major, in career planning, in job hunting, even in getting to the resources that would provide this assistance, and a continued need for assistance as alumni. Males on the other hand, seemed to have less difficulty in securing and utilizing whatever assistance they desired. It may be that the process of career planning proceeds more smoothly for males because they are socialized to perceive work as a major adult role, while the female college student, who is often socialized to be dependent on others, and who may not have been taught to perceive work as a major adult role for her, hardly knows where to begin. Since there are few differences between males and females in the actual use of career planning services available to them at UMCP, one wonders whether the services that women students received were adequate to their special needs. The female respondents in this sample were mixed in their evaluation of the career planning services that they utilized as students. Further research which focuses on the particular career planning needs of women at UMCP may help to clarify some of these issues.

Differences Among the Academic Divisions of the University

The differences that were found among the graduates responding from the seven academic division of the UMCP were mixed. There were significant differences in the composition of the divisions (Table 9). Males represented a greater proportion of graduates responding from the Division of Agriculture and Life Sciences and from the Division of Mathematics, Physical Sciences, and Engineering, and females represented a greater proportion of those responding

from the Arts and Humanities, the Behaivoral and Social Sciences, Human and Community Resources, Undergraduate Studies, and Allied Health Divisions.

Although the results were mixed, one pattern was found among the divisions. Graduates of the Division of Mathematics, Physical Sciences, and Engineering were significantly different from all other divisions in the mean salary reported, $16,938 (Table 7), in their stronger agreement that the CDC was helpful to them in their career planning, and in their stronger disagreement that they would seek more assistance with choosing a major or career if they had it to do again. Graduates of this division also disagreed more strongly than graduates of other divisions that a more practical, job oriented major would have been preferred. Graduates of this division also agreed most strongly of all the graduates that their academic program prepared them for their present situation and that they would take the same or a similar major again. They were also less certain than the graduates of other divisions that career planning services should be made available through the regular curriculum or that such services should be available to recent alumni.

It is not surprising that the graduates of the Division of Mathematics, Physical Sciences and Engineering would express greater satisfaction with their educational experience and their career planning. A large majority of the graduates from this division reported working either full-time or part-time (90%), in professional, managerial, or technical occupations (88%), in their chosen field (74%), and earning a substantially higher mean salary ($16,938) than graduates of other divisions. Similar results were found by Rodgers, et. al. Thus the career planning services available for this group of graduates appear to be adequately meeting their needs.

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APPENDIX A - TABLES

Table 1

Types of Educational Programs of May, 1979 Graduates *

Type of Educational Program	Percent Enrolled
Masters degree	37%
Doctoral degree	5%
Medical, Law, Divinity degree	15%
Courses to increase employability	20%
"Other" degree programs	4%
"Other" types of education	19%
All graduates enrolled in educational programs	100%

*69% were not enrolled in any educational program.

Table 2

Employment and Educational Status of May, 1979 Graduates*

Status	Percentage in Each Category	Percentage of Total Sample
Students -		18%
Not in labor force	9%	
Working part-time	8%	
Working full-time	1%	
Employed in chosen field -		53%
Military	1%	
Working part-time	4%	
Working full-time	48%	
Employed, but looking for work in chosen field -		21%
Working part-time	6%	
Working full-time	15%	
Unemployed, but seeking a job -		6%
Not in the labor force -		2%

* All graduates reporting (N=532)

Table 3

Percentage of May, 1979, Graduates Employed
Full-time by Occupational Group

Type of Occupation	% Males	% Females	% Total
Architecture, Engineering or Surveying	28%	5%	15%
Administrative specializations	15%	14%	15%
Clerical	3%	18%	11%
Education	4%	16%	10%
Managers and Officials	13%	6%	10%
Sales	5%	7%	6%
Writing	3%	8%	6%
Miscellaneous non-professional, technical, and managerial	7%	4%	5%
Mathematics and Physical Sciences	9%	2%	5%
Art	2%	5%	4%
Medical and Health	0%	6%	3%
Service occupations	3%	4%	3%
Life Sciences	1%	4%	3%
Miscellaneous professional, managerial, and technical	3%	2%	2%
Protective Services	2%	1%	1%
Total of all graduates reporting (N=336)	100%	100%	100%

Table 4

Comparison of Winter, 1978, and Spring, 1979, Graduates
Educational Status*

Status	Winter 1978	Spring 1979
Not enrolled or taking courses	84%	69%
Enrolled part-time	10%	14%
Enrolled full-time	6%	17%
	100%	100%

*Differences signficant at .05 level using Chi Square

Table 5

Comparison of Winter, 1978, and Spring, 1979 Graduates'
Reasons for Further Education*

Reasons for Further Education	Winter 1978	Spring 1979
"I could not find a suitable job."	15%	2%
"My career goals can only be attained through further education."	45%	62%
"I am interested in education for its own sake."	26%	27%
"Other."	13%	8%

*Differences significant at .05 level using Chi Square

Table 6

Comparison of Employment Status of Winter, 1978 and Spring, 1979 Graduates*

Employment Status	Winter 1978	Spring 1979
Employed full time	61%	64%
Employed part-time	20%	17%
Not in the labor force	7%	10%
Unemployed, but seeking a job	12%	6%
In military	less than 1%	2%
	100%	100%

* Differences significant at the .05 level, using Chi Square

Table 7

Mean Starting Salaries of May, 1979, Male and Female Graduates by Division*

Division***	Mean Salary**		
	Males (N=120)	Females (N=170)	Division Mean
Agricultural and Life Sciences (N=36)	$11,858	$10,145	$10,906
Arts and Humanities (N=48)	$11,811	$10,398	$10,928
Behavioral and Social Sciences (N=85)	$13,027	$10,265	$11,467
Human and Community Resources (N=67)	$14,016	$ 9,880	$10,435
Mathematics, Physical Sciences and Engineering (N=42)	$17,203	$14,980	$16,938
Undergraduate Studies (N=12)	$14,500	$12,707	$13,155
Mean Salary Across Groups	$14,087	$10,411	$11,932

*Full-time employment only, N=290.

**Differences between sexes and among divisions signficant at .05 level using analysis of variance

***Allied Health eliminated because N=1.

Table 8

Current Career Needs of Male and Female May, 1979, Graduates*

Area of Career Need	Need Help		Do Not Need Help		Total
	Males	Females	Males	Females	
Learning effective job hunting strategies. (N=539)	12%	21%	34%	34%	100%
Knowing how to find information about jobs in my field of interest. (N=532)	19%	32%	27%	22%	100%
Learning how to effectively communicate and be confident in job interview. (N=525)	10%	18%	35%	37%	100%
Help developing a marketable resume. (N=528)	16%	21%	30%	33%	100%
Exploring careers that fit my interests, skills, and values. (N=530)	17%	29%	29%	25%	100%
Learning about additional specialized training in my field. (N=532)	23%	34%	22%	21%	100%
Exploring career options that I may not have considered (N=531)	27%	39%	19%	16%	100%
Identifying my interests and skills, and relating them to possible careers. (N=526)	15%	27%	30%	28%	100%

*Differences significant at .05 level using Chi Square.

Table 9

Percentage of May, 1979, Graduates by Sex by Division*

Division	% All		% by Sex Within Divisions		
	Males	Females	Males	Females	
Agriculture and Life Sciences	19%	13%	54%	46%	100%
Arts and Humanities	14%	17%	40%	60%	100%
Behavioral & Social Sciencs	36%	31%	48%	52%	100%
Human and Community Resources	8%	32%	16%	84%	100%
Mathematics, Physical Sciences and Engineering	21%	3%	85%	15%	100%
Undergraduate Studies	2%	4%	25%	75%	100%
Allied Health	0%	less than 1%	0%	100%	100%
	100%	100%			

*Differences significant at .05 level using Chi Square.

Table 10

Occupational Classification of May, 1979, Graduates by Division*

Division	Occupational Classification					
	Professional, Managerial, Technical Occupations	Clerical & Sales Occupations	Service Occupations	Agricultural, Fishery, Forestry, & Related Occupations	All Others	
Agriculture and Life Sciences	55%	16%	9%	12%	7%	100%
Arts & Humanities	75%	16%	6%	0%	3%	100%
Behavioral & Social Sciences	57%	30%	6%	1%	6%	100%
Human & Community Resources	75%	17%	6%	0%	2%	100%
Mathematics, Physical Sciences and Engineering	88%	2%	10%	0%	0%	100%
Undergraduate Studies	41%	47%	6%	0%	6%	100%

*Differences significant at the .05 level using Chi Square.

Table 11

Occupational Setting by Division of the University*

Type of Organization	Agricultural & Life Sciences	Arts & Humanities	Behavioral & Social Sciences	Human & Community Resources	Mathematics Physical Sciences & Engineering	Undergraduate Studies	Allied Health
Self-employed	7%	5%	4%	5%	2%	7%	0%
Education	13%	10%	5%	35%	12%	0%	0%
Large National/International Business/Industry	54%	13%	28%	13%	42%	14%	0%
Other Business/Industry	27%	43%	27%	22%	18%	29%	0%
Federal Government	18%	11%	12%	3%	12%	21%	100%
State and Local Government	13%	3%	6%	3%	10%	0%	0%
Social and Community Services	2%	5%	4%	4%	0%	7%	0%
Military	5%	0%	0%	1%	4%	0%	0%
Other	11%	11%	15%	13%	2%	21%	0%
	100%	100%	100%	100%	100%	100%	100%

*Differences significant at .05 level using Chi Square.

Table 12

Use of Career Planning Resources by Division[1]

Division	Career Development Center Staff	Other UMCP Faculty/ Staff	Career related workshops, courses, or programs	Written material on job search techniques/resume preparation	Employer literature
Agriculture & Life Sciences	53% DNS[2]	15% DNS	75% DNS	60% DNS	59% DNS
	41% AH[2]	71% AH	19% AH	39% AH	32% AH
	6% ANH[2]	14% ANH	6% ANH	2% ANH	9% ANH
Arts & Humanities	56% DNS	21% DNS	54% DNS	47% DNS	69% DNS
	18% AH	68% AH	35% AH	4% AH	21% AH
	26% ANH	13% ANH	11% ANH	13% ANH	10% ANH
Behavioral & Social Sciences	40% DNS	37% DNS	69% DNS	36% DNS	50% DNS
	42% AH	58% AH	25% AH	47% AH	35% AH
	18% ANH	5% ANH	7% ANH	17 ANH	15% ANH
Human & Community Resources	36% DNS	21% DNS	44% DNS	30% DNS	58% DNS
	48% AH	63% AH	41% AH	59% AH	29% AH
	16% ANH	16% ANH	15% ANH	11% ANH	13% ANH
Mathematics, Physical Sciences & Engineering	36% DNS	31% DNS	71% DNS	37% DNS	15% DNS
	60% AH	64% AH	21% AH	56% AH	77% AH
	4% ANH	6% ANH	8% ANH	8% ANH	8% ANH
Undergraduate Studies	79% DNS	21% DNS	79% DNS	43% DNS	50% DNS
	21% AH	71% AH	14% AH	43% AH	14% AH
	0% ANH	7% ANH	7% ANH	14% ANH	36% ANH

47 Allied Health excluded due to N=1)

[1] Differences significant at .05 using Chi square

[2] DNS = Did not seek resource; AH = assistance received was helpful; ANH = assistance received was NOT helpful.

APPENDIX B

Occupational Groupings from the Dictionary of Occupational Titles

1. PROFESSIONAL, TECHNICAL AND MANAGERIAL OCCUPATIONS

   Occupations in architechture, engineering and surveying
   Occupations in mathematics and physical sciences
   Occupations in life sciences
   Occupations in social sciences
   Occupations in medicine and health
   Occupations in education
   Occupations in museum, library and archival sciences
   Occupations in law and jurisprudence
   Occupations in religion and theology
   Occupations in writing
   Occupations in art
   Occupations in entertainment and recreation
   Occupations administrative specializations
   Managers and officials
   Miscellaneous professional, technical and managerial occupations

2. CLERICAL AND SALES OCCUPATIONS

   Stenography, typing, filing, and related occupations
   Computing and account-recording occupations
   Production and stock clerks and related occupations
   Sales occupations, services
   Sales occupations, consumable commodities
   Miscellaneous sales occupations

3. SERVICE OCCUPATIONS

   Domestic service occupations
   Food and beverage preparation and service occupations
   Lodging and related service occupations
   Barbering, cosmotology, and related occupations
   Miscellaneous personal service occupations
   Protective service occupations

4. AGRICULTURAL, FISHERY, FORESTRY, AND RELATED OCCUPATIONS

   Plant farming occupations, gardening
   Animal farming occupations
   Fishery and related occupations
   Forestry and related occupations
   Hunting, trapping, and related occupations

5. PROCESSING OCCUPATIONS

6. MACHINE TRADE OCCUPATIONS

APPENDIX - B Occupational Groupings from the D.O.T.

7. BENCHWORK OCCUPATIONS

8. STRUCTURAL OCCUPATIONS

Construction occupations

9. MISCELLANEOUS OCCUPATIONS

Motor freight occupations
Transportation occupations
Amusement, recreation, motion picture, radio and television occupations
Occupations in graphic art work.

UNIVERSITY OF MARYLAND
CAREER DEVELOPMENT CENTER
COLLEGE PARK 20742

AREA CODE 301 - 454-2813

APPENDIX C

Dear Alum:

The Career Development Center is expanding its services to past graduates!!! What we need to know is HOW? What types of services would YOU be interested in? How can we improve?

The enclosed questionnaire will help us take your suggestions in an organized way. Please answer all the items and return the questionnaire in the postage-free envelope we have provided.

To insure complete anonymity, please send the postage-paid postcard back to us SEPARATELY. In this way, we can determine if you returned the questionnaire but, in no way can we pair your particular responses to your name.

All of your answers will be considered CONFIDENTIAL. The results will be presented in summary form only (individuals cannot and will not be identified to anyone on or off campus).

If you wish to learn of the results, please check the box on the enclosed postcard. Or, if you wish any other form of assistance, contact: Dr. Thomas Bachhuber, Director, Career Development Center, Undergraduate Library, UMCP, College Park, MD 20742, Phone 301-454-2813.

Thank you for helping us design better ways to help you and your fellow alums.

Sincerely,

Thomas D. Bachhuber
Director

APPENDIX D

UMCP ALUMNI CAREER SURVEY - II

1. Your sex is ____M ____F

2. Your race is:

____1. American Indian
____2. Black
____3. Asian/Oriental
____4. Hispanic
____5. White
____6. Other

3. Your major in college was:

_____

4. Which of the following BEST describes your present situation:

____1. Student
____2. Employed in my chosen field or in a satisfactory position
____3. Employed, but seeking a job in my chosen field
____4. Unemployed, but seeking a job
____5. Not in the labor force (includes homemakers, volunteer workers)
____6. In the military

* * * * * * * * * * *

I. E D U C A T I O N

5. Please indicate your present educational status by checking the ONE appropriate statement:

____1. Not enrolled or taking any courses
____2. Enrolled part time
____3. Enrolled full time

6. Please indicate the type of program you are in by checking the ONE appropriate statement:

____1. Doctoral
____2. Masters
____3. Medical, Law, Divinity
____4. Other degree granting programs
____5. Any courses/programs designed to increase your employability
____6. Other (please explain): ____

_____

7. Please indicate below the ONE statement that BEST describes your choices in #5 & #6 above:

____1. I could not find a suitable job

____2. My career goals can only be attained through further education

____3. I am interested in further education for its own sake

____4. Other (please explain) _____

_____

II. E M P L O Y M E N T

8. Please indicate your present employment status by checking the ONE appropriate statement:

____1. Not in the labor force
____2. Unemployed, but seeking a job
____3. In the military
____4. Employed part time
____5. Employed full time

9. Occupational title: _____

_____

10. YEARLY earnings from job indicated #9 above: $_____ per year

11. Which of the following BEST describes the type of organization in which you work:

____1. Self employed
____2. Education
____3. Large national/international business/industry
____4. Other business/industry
____5. Federal government
____6. State/local government (non-educational)
____7. Social/community services
____8. Military
____9. Other (please explain): _____

_____

* * * * * * * * * * *

12. Using the key below, rate <u>each</u> item as it BEST describes your <u>current</u> career needs:

1	2
Need help in this area <u>NOW</u>	Do <u>NOT</u> need help in this area <u>NOW</u>

____1. Learning effective job hunting strategies.
____2. Knowing how to find information about jobs in my field of interest.
____3. Learning how to effectively communicate and be confident in job interviews.
____4. Help with developing a marketable resume.
____5. Exploring careers that fit my interests, skills, and values.
____6. Learning about additional specialized training in my field.
____7. Exploring career options that I may not have considered.
____8. Identifying my interests and skills, and relating them to possible careers.

13. Using the rating key below, indicate the extent to which you agree or disagree with <u>EACH</u> statement:

1	2	3	4	5
Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

____ 1. My undergraduate academic program helped me to prepare for my present situation.
____ 2. My personal life in college helped me prepare for my present situation.
____ 3. My extracurricular life in college helped me prepare for my present situation.
____ 4. I am satisfied with my present situation.
____ 5. If I had it to do over again, I would take the same or a similar major.
____ 6. I wish I had had more practical job preparation at UMCP.
____ 7. I wish I had taken a more practical, job oriented major.
____ 8. I wish I had taken a greater variety of courses in addition to my major.
____ 9. I feel that UMCP should provide career planning services for recent alumni.
____10. College life does not permit sufficient time to effectively engage in career planning or job hunting.
____11. It is difficult to find information about careers at UMCP.
____12. The Career Development Center was helpful to me in planning for my career.
____13. The working world is just as I had expected it to be.
____14. I can make better use of career planning services now than I could when I was a student at UMCP.
____15. Career planning and job hunting services should be more accessible through academic courses and the regular curricula.
____16. If I had it to do over again, I would seek out more help choosing a major and a career before I graduated.
____17. If I had it to do over again, I would seek out more help with job search skills before I graduated.

14. The following list represents resources that people frequently use in their career preparation. Using the following key, rate EACH resource as it BEST describes your experience as a UMCP student.

Did NOT SEEK any assistance from source	Assistance received was HELPFUL	Assistance received was NOT HELPFUL

____ 1. Career Development Center Staff
____ 2. Other UMCP faculty/staff
____ 3. Family, friends, clergy
____ 4. Career related workshops, courses or programs
____ 5. Interviews with employers
____ 6. Private or state employment
____ 7. Written material from UMCP on choosing a career
____ 8. Written material from UMCP on job search techniques, resume preparation
____ 9. Employer literature
____ 10. Job vacancies/announcements in want ads, the Career Library, or on bulletin boards at UMCP

15. ____Check here if at least one of the above resources was provided through the Career Development Center at UMCP.

16. If you did not make use of any of the services provided by the Career Development Center while you were a student at UMCP, place a check next to the ONE statement which BEST describes your reason.

____1. I did not know of the services offered by the Career Development Center.
____2. I knew of the services, but did not think that those offered would be of any use to me.
____3. I knew of the services, but did not think I had a need for them.
____4. I knew of the services, but did not have time to take advantage of them.
____5. Other (please explain): _____

17. COMMENTS/SUGGESTIONS: (Please feel free to write in any comments or suggestions.)

Thank you for your time and consideration. If we can be of any assistance, please do not hesitate to contact the Career Development Center, Undergraduate Library, University of Maryland, College Park, MD 20742. Phone 301-454-2813.